

A new species of the genus *Zelotes* (Araneae: Gnaphosidae) from Taiwan

Takahide Kamura

Biological Laboratory, Otemon Gakuin University, 2-1-15,
Nishi-Ai, Ibaraki, Osaka, 567-8502 Japan
E-mail: kamura@res.otemon.ac.jp

Abstract — A new gnaphosid species is described from Taiwan under the name of *Zelotes nishikawai*. This species is distinguished from *Z. iriomotensis* Kamura 1994 by male palpal structure in which expanded embolar base is situated more prolaterally and widely covering subtegulum, and female epigynum with median plate wider in posterior part.

Key words — Gnaphosidae, *Zelotes*, new species, Taiwan.

At present, *Zelotes asiaticus* (Bösenberg & Strand 1906) is the only known species of the genus *Zelotes* from Taiwan (Chen 1996, Platnick 2010). Recently I had an opportunity to examine some specimens collected from Taiwan by Dr. Yoshiaki Nishikawa, Otemon Gakuin University, and found a new species belonging to the genus *Zelotes*, which will be described in this paper.

The type specimens of the new species described in this paper are deposited in the collection of the Department of Zoology, National Museum of Nature and Science, Tokyo (NSMT).

The abbreviations used in this paper are as follows: ALE, anterior lateral eye; AME, anterior median eye; MOA, median ocular area; PLE, posterior lateral eye; PME, posterior median eye; r, retroventral. Eye size means length of long axis of an eye, but measurement of posterior median eye was made at horizontal level.

Before going further, I would like to express my sincere thanks to Dr. Y. Nishikawa for offering the specimens used in this study.

Zelotes nishikawai n. sp.

(Figs. 1–4)

Type series. Holotype (♂, NSMT-Ar 8649) and paratype (♀, NSMT-Ar 8650), An-ma Shan, Ho-p'ing Hsiang, T'ai-chung Hsien, Taiwan (elevation about 2,000 m), 23.V.1991, Y. Nishikawa leg.

Other specimens examined. 3♂, same data as the holotype.

Diagnosis. This new species is similar to *Zelotes*

iriomotensis Kamura 1994 known from Yaeyama Islands, southwest Japan in male palpal structure in which embolar base is expanded proventrally and inserted between subtegulum and intercalary sclerite, and terminal apophysis has a thin projection on prolateral side. These two species are distinguished from each other by following point: in male palp of this new species embolar base is situated prolaterally and widely covering subtegulum (Fig. 1) while in that of *Z. iriomotensis* embolar base somewhat medially situated is strongly pushing intercalary sclerite (Kamura 1994, fig. 1); and in females posterior part of epigynal median plate is wider in this new species (Fig. 3) than in *Z. iriomotensis* (Kamura 1994, fig. 3).

Description. Measurements (based on the male holotype and the female paratype, in mm). Body length ♂5.43, ♀6.50. Carapace length ♂2.43, ♀2.30; width ♂1.90, ♀1.75. Abdomen length ♂3.00, ♀4.20; width ♂1.65, ♀2.25. Eye sizes: AME ♂0.08, ♀0.08; ALE ♂0.12, ♀0.11; PME ♂0.08, ♀0.07; PLE ♂0.09, ♀0.09. Distances between eyes: AME-AME ♂0.05, ♀0.05; AME-ALE ♂0.01, ♀0.01; PME-PME ♂0.07, ♀0.08; PME-PLE ♂0.07, ♀0.05; ALE-PLE ♂0.05, ♀0.05. MOA anterior width ♂0.21, ♀0.20; posterior width ♂0.23, ♀0.22; length ♂0.24, ♀0.24. Clypeus height ♂0.09, ♀0.09. Length of legs as in Table 1.

Variation (in mm). ♂: body length 5.43–5.83; carapace length 2.43–2.63, width 1.90–2.05; abdomen length 3.00–3.20, width 1.60–1.85.

Ventral spines on legs I and II. ♂: Tibiae: I 0-1r-0, II 0-1r-0 or 1r-1r-0; metatarsi: I and II 2-2-0. ♀: Tibiae: I and II 0-1r-0; metatarsi: I and II 2-2-0.

Male palp (Figs. 1–2): terminal apophysis with a thin projection on prolateral side; embolar base expanded proventrally. Epigynum with a median plate narrowed at middle part (Fig. 3). Female internal genitalia with a pair of rounded bases on posterior part (Fig. 4).

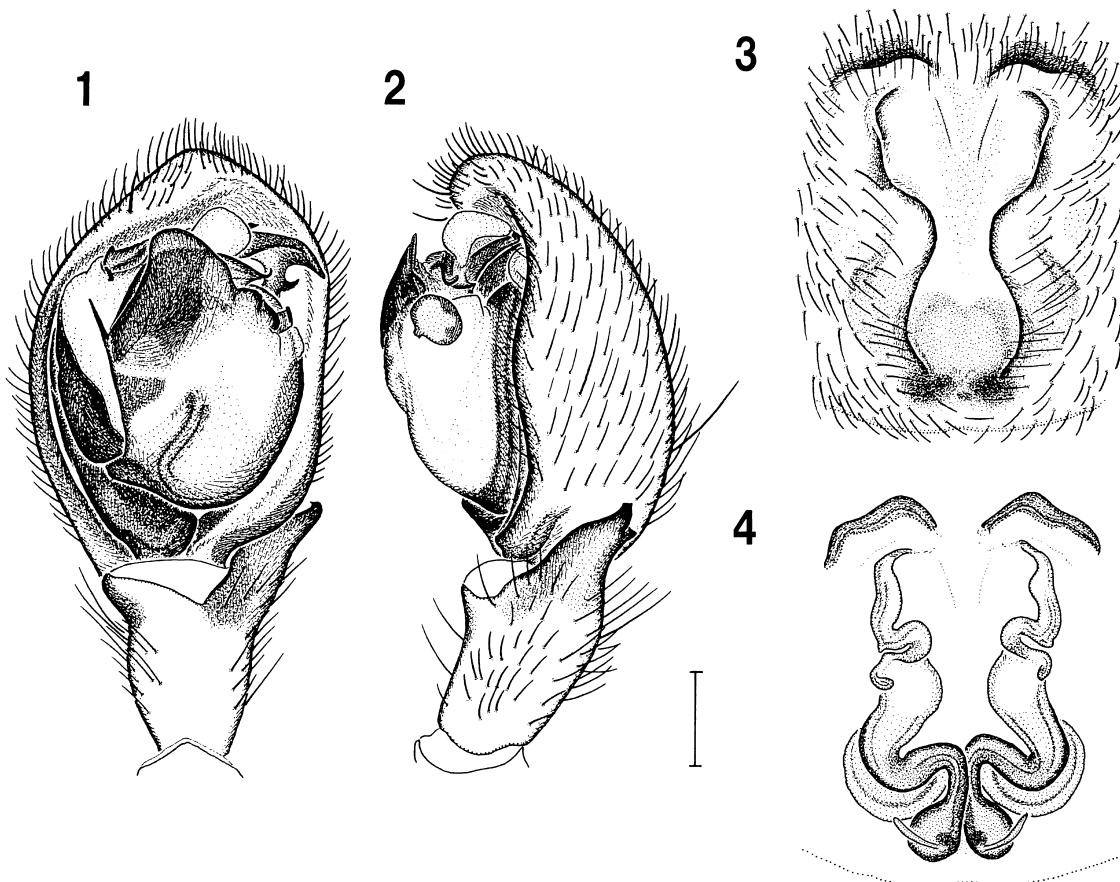
Color. Body and appendages dark reddish brown, but venter of abdomen paler.

Distribution. Taiwan.

Remarks. In *Zelotes* species common leg formula is IV-I-II-III, but in male of this new species leg I is the longest instead of leg IV although in female normally leg IV is the longest (Table 1). This unusual leg formula in male is also seen in two Japanese species, *Zelotes iriomotensis* Kamura 1994 and *Zelotes zephyrus* Kamura 1999 (Kamura 1994, table 1; Kamura 1999, table 2).

Most of *Zelotes* species have male palp in which embolar base is situated dorsally to terminal apophysis, but in this new species embolar base is expanded proventrally and inserted between subtegulum and intercalary sclerite. This condition of male palpal embolar base is also seen in two Japanese species shown above (Kamura 1994, fig. 1; Kamura 1999, fig. 8) and a Chinese species, *Zelotes wuchangensis* Schenkel 1963 (Platnick and Song 1986, fig. 33).

Etymology. The specific name is dedicated to Dr. Yoshiaki Nishikawa.



Figs. 1–4. *Zelotes nishikawai* n. sp., male holotype and female paratype — 1, Left male palp, ventral view; 2, same, retrolateral view; 3, epigynum, ventral view; 4, female internal genitalia, dorsal view. (Scale: 0.2 mm)

Table 1. Measurements of legs of *Zelotes nishikawai* n. sp. (male holotype/female paratype, in mm).

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	2.13/1.78	1.22/1.08	1.73/1.31	1.62/1.15	1.31/0.94	8.01/6.26
II	1.69/1.50	0.98/0.92	1.24/1.06	1.21/1.01	1.00/0.86	6.12/5.35
III	1.47/1.32	0.78/0.72	1.00/0.87	1.20/1.04	0.80/0.76	5.25/4.71
IV	2.04/1.88	1.04/0.98	1.63/1.45	1.89/1.66	1.00/0.92	7.60/6.89

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